

Notice of Allowability

Application No.

09/965,926

Examiner

Kristie Shingles

Applicant(s)

KAMVYSSELIS, PETER

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/21/2007.
2. ☒ The allowed claim(s) is/are 66-79 and 83-96.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 3/2007.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

kds/20070329

DETAILED ACTION

Response to Amendment

Claims 66, 71, 78, 83, 88 and 95 have been amended.

Claims 1-65 and 80-82 have been cancelled.

Claims 66-79 and 83-96 are pending.

Claims 66-79 and 83-96 are allowed.

Response to Arguments

I. Applicant's arguments (see Remarks pages 3-6) filed 11/30/2006, with respect to independent claims 63 and 80 been fully considered and are persuasive. Therefore the 35 USC 103(a) rejections of the pending claims have been withdrawn.

Examiner's Amendment

II. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

III. Authorization for this Examiner's amendment was given in a telephone interview with Atty. Donald Muirhead on March 29, 2007. Please make the following changes:

a. **Regarding Claim 78:**

- In line 7: between "other" and "storage", insert—*secondary*; and
- In line 8: delete "synchronizing", and replace with—*sending*.

b. **Regarding Claim 95:**

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- In line 7: between “other” and “storage”, insert—*secondary*; and
- In line 10: delete “synchronizing”, and replace with—*sending*.

Reasons for Allowance

(The following is an examiner's statement of reasons for allowance)

IV. The prior art or record fails to teach neither singly nor in combination, the claimed limitations of “sending data from a first storage device to at least one other secondary storage device, said data being sent in a plurality of data packets, each of said plurality of packets being associated with a sequence number having a first predetermined value; upon determining that the data has been successfully stored on all of said at least one other secondary storage device, deleting journal entries in a sender corresponding to said data; upon determining a failure in connection with sending data between a first storage device and at least one other secondary storage device, deleting journal entries in each of said at least one other secondary storage device, and resending unsynchronized journal entries from the sender by sending a plurality of data packets all having a same sequence number lower than sequence numbers associated with other unsent packets and then sending any remaining data packets have a next higher sequence number, wherein data packets having the same sequence number are sent in an order that is independent of an order in which the data packets were created and wherein data packets having the same sequence number represent different data that is independently generated from a plurality of different sources” as stated in independent Claims 78 and 95 (see Applicant’s Specification, pages 19-20 and 23-27).

V. Although prior art *Gawlick et al* (US 4,507,751), *Kern et al* (US 5,734,818), *Euler et al* (US 6,052,696) and *DeLorme et al* (US 4,819,156), disclose methods and

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systems for implementing journaling and data recovery for storage systems; the prior art fails to explicitly teach the claimed limitations of resending unsynchronized journal entries from the sender by sending packets all having a same sequence number, wherein the packets with the same sequence number are sent in an order independent of their creation and wherein the packets with the same sequence number represent different data independently generated from different source. Furthermore, the prior art fails to teach or suggest "wherein in response to the sequence number in the sender becoming equal to a second predetermined value different from the first predetermined value, acknowledging receipt of the blocks of data corresponding to the packets of data that are assigned the first predetermined value as the sequence number and sending the packets of data that are assigned the first predetermined value as the sequence number to said at least one other secondary storage device" as cited in Claims 78 and 95.

VI. As discussed in Applicant's Remarks filed 11/30/2006, these limitations, in conjunction with other limitations in the independent and dependent claims, are not specifically disclosed or remotely suggested in the prior art of record. A review of Claims 66-79 and 83-96 in view of the Examiner's remarks above, indicates that Claims 66-79 and 83-96 are allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

VII. Any inquiry concerning this communication or earlier communications from the

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examiner should be directed to Kristie Shingles whose telephone number is 571-272-3888. The examiner can normally be reached on Monday-Friday 8:30-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristie Shingles
Examiner

kds


RUPAL DHARIA
SUPERVISORY PATENT EXAMINER